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CHALLENGES TO JAPAN'S HEALTH INSURANCE SYSTEM

Summary

After nearly 30 years of universal health insurance Japan has reached a stage of good health for its citizens without a great drain on its economy. Although concerns about the rapidly aging society and increasingly costly medical interventions are assailing the financial overseers of Japan's health planning, the systematic approach to insurance appears to give the government a way to control at least one aspect of health spending through strict regulation of insurers' involvement.

Despite its stalwart state, however, Japan's health insurance coverage has some built-in frailties, including a closed, subjective medical system that encourages entrepreneurial competition among providers whose commodity -- health care -- tends not to be priced according to the laws of supply and demand. Whether these frailties carry the germs that can upset Japan's history of improving medical care and containing costs remains to be seen. Japan, however, has been plotting a course to address concerns about the greater number of health care-consuming elderly, the higher costs of technology and even the threat of such diseases as acquired immune deficiency syndrome, which, as yet, poses only a minor drain on national insurance resources.

Concern for Health

Japan's system of universal health insurance may be one more reason for the United States to wonder whether new lessons can be learned from its economic rival. The improving health picture between 1961, when Japan began to offer

health insurance coverage to all those not covered by dint of their own work or the head of household's job, and the present owes more to improved economic conditions and worldwide advances in medicial science, obviously, than to health insurance coverage. Yet the insurance system is thought to have been a factor in helping Japan overtake Sweden, which has socialized medicine, as the country with the world's longest life expectancies -- 75.2 years for men and 80.9 years for women as of 1986. (The U.S. figures that year were 71.3 years for men and 78.3 years for women.) Assurance of access to care also may be linked with Japan's low infant mortality rates, among the lowest in the world at 5.2 deaths per 1,000 births. (In America that figure stretches to 10.6 deaths per 1,000 births.)

As the world's health has improved through medical discoveries that have helped tame acute diseases as the main causes of death, chronic diseases -- often linked to lifestyles -- have become the main focus of medical attention. Japan, where the number-one killer is cancer, is no exception. A cross-cultural study by the World Health Organization showed that Japan's 1985 death rate from stomach cancer, 42.9 per 100,000, was far higher than in other industrialized countries. The second highest rate was in Portugal, at 28.2 per 100,000. A survey released in February by the Health and Welfare Ministry linked the high rate of stomach cancer to consumption of food rich in salt and spice. Similar dietary links are blamed for the second main cause of death in Japan, heart disease. The Social Insurance Agency in 1986 attributed the rising incidence of heart problems on westernized eating habits, including a larger amount of fat in the diet, plus less exercise, increased weight and a more stressful life-style.[1] The fact that problems from hypertension bring about the third-ranked cause of death may reflect one more aspect of Japan's industrialization: the greater stress and associated complications from sedentary work and typically long, crowded commutes. There also have been increasing reports of mental illness in recent years, but whether this is connected with industrialization or increased public awareness of mental health is problematic.

Additional factors that might make Western observers wonder at Japan's favorable health statistics include a population in which 63 percent of the men smoke yet death rates for lung cancer, emphysema and related lung disorders remain lower than in many nations. The frequent drinking excursions expected of businessmen after work also might raise questions about alcoholism, yet cirrhosis of the liver as a major cause of death affected about the same number in Japan (15 per 100,000 people in 1985) as in the United States (13.2 per 100,000 in 1983) and far fewer than in either France (24.7 per 100,000 in 1984) or West Germany (26.9 per 100,000 in 1985).[2] While the opportunities to abuse good health are as abundant in Japan as in other nations, the Japanese appear to

[1]Social Insurance Agency, Outline of Social Insurance in Japan, 1986 (Tokyo: Japan International Social Security Association, 1987), p. 7.

[2]World Health Organization data in Statistical Abstract of the United States 1988 (Washington, D.C.: Government Printing Office, 1987), Table 1382.

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have maintained their health with a combination of awareness, a distrust of invasive medical procedures and a heavy reliance on preventive care.

The well-informed Japanese have a generally high degree of health consciousness, some might say an inordinate degree. For example, although about 60 percent of the respondents to government-sponsored opinion polls in recent years have said they were healthy, the most recent poll reported in March 1989 that the 26 percent who said they were in great health this year was only half the number recorded in previous years. In other national attitude surveys health consistently has ranked among the top concerns of a majority of respondents. This awareness of health matters also can have a downside in that those worried about illness may seek more medical attention. Of those responding to a 1980 survey, for example, only 1.3 percent said they had not received medical care during the year, although seven out of 10 said they considered themselves to be in good health.[3]

Studies in the United States have shown that free medical care for adults has encouraged greater use without greatly improving health status. Japan's health care no longer is free; the government has instituted partial payment by all but the most elderly (or bedridden) patients in order to curb any tendency toward abuse of the system. However, the cost of care remains generally low per person. The national per person health expenditure in 1986, for example, was $831 in Japan, compared with $1,926 in the United States and $1,370 in Canada, which also has a national system of health coverage. The low cost of obtaining medical care in Japan together with an emphasis on prevention may help to avert chronic problems. One example of this is in prenatal care.

The Japanese point out with pride that the availability of care starts as soon as a mother-to-be learns she is pregnant. Prenatal screening is encouraged through the use of a record book that the expectant mother receives at her first visit and then fills in on subsequent visits. Once the child enters society, either the government or private insurers cover future medical costs except those, ironically, for preventive health care. Equally ironic, a normal childbirth is not covered by actual health insurance, although the insurance programs that otherwise would give medical coverage provide supplemental benefits that help cover the cost of birth and that also cover maternity leave in the case of working mothers. As a measure of the importance of prenatal screening, many blame the relatively high U.S. infant mortality rate on the expectant mother's failure to visit a doctor early in her pregnancy. One estimate says 26 percent of American women of child-bearing age have no maternity coverage.[4] This is a problem particularly among the poor who must rely on often overburdened community programs or on physicians in poor neighborhoods who quickly fill their quota of patients under Medicaid (the federal-state health insurance program for the very poor).

[3]William E. Steslicke, "The Japanese State of Health" in Health, Illness and Medical Care in Japan: Cultural and Social Dimensions, eds. Edward Norbeck and Margaret Lock (Honolulu: University of Hawaii Press, 1987), p. 34.

[4]Victor Cohn, "Pay More, Get Less: New Crisis in Medical Benefits," Washington Post Health, November 15, 1988, p. 19.

Other possible factors in Japan's overall picture of good health include the absence of great income disparities, high educational levels and a low degree of inner-city problems -- drugs, homelessness and unwed mothers. Some cultural anthropologists also contend that a traditional emphasis on cleanliness has promoted hygienic behavior that helps cut down transmission of disease.

Awareness, low cost, cultural factors plus advancements in medical science and living standards have enabled Japan to reach a point where those overseeing health care no longer are as concerned about access to care and the quality of service as they are about controlling costs. A study by the Organization for Economic Cooperation and Development indicates that Japan stood at the forefront in increasing its health expenditures per capita between 1970 and 1984, a time of great economic growth. While the United States spent more per capita on health than Japan in 1984 -- $1,637 per person compared with $818 adjusted according to purchasing power parities -- the average annual 1970-84 growth rate showed the United States lagging with a rate of 11.3 percent compared to Japan's growth of 13.4 percent. These figures were 2.7 percentage points and 3.2 percentage points, respectively, higher than the growth in gross domestic product per capita during the same time frame (see Table 1). Other figures that are not adjusted for purchasing power parities suggest Japan spends less of its GDP on medical care than the United States -- an estimated 6.7 percent in 1986 compared with America's 11.1 percent that year.

Yet expenditures in Japan are growing fast enough that policymakers are looking at ways to contain them. Two areas usually scrutinized for cost-control are the systems of payment and delivery. In Japan the cost of medical care for fiscal year 1989, which started April 1, is expected to increase 5.7 percent. (Forecasters put the U.S. increase this year at 9.1 percent.) The estimated cost of medical care per person in Japan for the year is set at ¥162,000 ($1,296 at ¥125=$1.00). This compares with a cost in 1980 of ¥102,300 per person ($451 at 1980's average exchange rate of ¥226.74=$1.00). Both the government and employers and employees who contribute to insurance programs have an equal interest in keeping premiums low and costs down. They all benefit in keeping the insurance structure well-regulated. Government oversight of basic health insurance virtually denies a role to third-party reimbursers, although they may provide supplemental insurance.

Comparison of U.S. and Japanese Health Insurance Programs

In contrast to the complicated insurance choices available in the United States for the 86.7 percent of the population obtaining coverage -- health maintenance organizations, preferred provider organizations, private pay or a variety of private health insurance programs plus government-funded Medicare and Medicaid -- Japan's universal system is simpler, at least in that it offers less choice. Payment for basic care is made either through one's workplace or by a locally imposed levy.

In Japan the national government's first program of job-related coverage came under the 1922 Health Insurance Law, which covered miners and laborers. (The law actually took full effect about 1927.) And in 1938 local governments began providing insurance to those engaged in farming, forestry and fishing. With the revision of the National Health Insurance Law in 1961, the central government entered into the somewhat precarious financial role of coordinating and guaranteeing insurance benefits for all.

Table 1: OECD Members' Per Capita Health Spending and Gross Domestic Product, 1970 and 1984

(U.S. dollars at GDP purchasing power parities and current prices)

Country	1970		1984		Compound Annual Growth Rate, 1970-84	
	Total Health Spending Per Capita	GDP Per Capita	Total Health Spending Per Capita	GDP Per Capita	Total Health Spending Per Capita	GDP Per Capita
Australia	$232	$4,040	$994	$12,679	11.0%	8.5%
Austria	163	3,056	818	11,345	12.2	9.8
Belgium	147	3,652	777	12,439	12.6	9.1
Canada	322	4,452	1,275	15,198	10.3	9.2
Denmark	252	4,147	841	13,310	9.0	8.7
Finland	183	3,280	806	12,217	11.2	9.8
France	223	3,685	1,145	12,643	12.4	9.2
West Germany	220	3,993	1,079	13,265	12.0	9.0
Greece	70	1,756	287	6,300	10.6	9.6
Iceland	288	3,382	1,045	13,238	9.6	10.2
Ireland	122	2,196	622	7,795	12.3	9.5
Italy	171	3,093	725	10,093	10.9	8.8
Japan	141	3,189	818	12,419	13.4	10.2
Netherlands	232	3,881	1,011	11,710	11.1	8.2
New Zealand	--	--	595	10,601	--	--
Norway	191	3,083	965	15,367	12.3	12.2
Portugal	--	--	275	5,021	--	--
Spain	102	2,473	476	8,279	11.6	9.0
Sweden	359	4,976	1,445	15,434	10.5	8.4
United Kingdom	161	3,563	658	11,068	10.6	8.4
United States	366	4,826	1,637	15,357	11.3	8.6

Source: Organization for Economic Cooperation and Development, Financing and Delivering Health Care: A Comparative Analysis of OECD Countries (Paris, 1987), p. 56.

Coverage actually involves cost-sharing by the receiver of care, employers where applicable, and the national or the local government. Physicians agree to accept as payment the fees determined by a special government council. The insurance agent -- be it the government or a special group -- varies, depending on whether the insuree works or not and where he or she works. No matter what the program, each health care user is expected to pay at least 10 percent of each visit, up to a maximum per month of Y54,000 ($432) per illness. Those over age 70 or between ages 65 and 70 if they qualify for disability are exempted from the 10 percent cost-sharing but pay Y800 ($6.40) a month for any outpatient services they use and Y400 ($3.20) a month for any inpatient care. Dependents may have to pay up to 20 percent of the cost of inpatient services or 30 percent of outpatient services. Copayments are made when care is delivered. Premiums go into either a work-based fund or a government-run operation. Between premiums and copayments each person will pay an estimated 13 percent of the overall cost of care (estimated to be $1,296 per person in FY 1989). The health care providers submit the remaining charges monthly to a central clearinghouse, which examines them for accuracy and appropriate treatment, then forwards approved bills to the insurance group covering the patient.

In contrast, U.S. programs for service and reimbursement run the gamut. Costs for insurance alone -- not overall medical payments -- ran $1,837 per insuree in 1986. This included cost-sharing (similar to the Japanese model), which usually involves paying premiums to some type of insurance organization (Blue Cross, Blue Shield or private insurers) through the workplace and receiving 80 percent or more coverage of specified benefits. The insured pays the remainder or possibly buys supplemental insurance independently to help cover costs. Employees at some businesses, however, might join a health maintenance organization, which offers benefits to a group for a fixed per person sum each month. The employee usually contributes to the premium and may face a slight, fixed charge per visit at a specified medical facility.

Similar to HMOs are preferred provider organizations, which operate through group practices. Both HMOs and PPOs seek cost-savings by offering packages to employers and trying to limit the costs of services either by providing broad-based coverage to a large group that is expected to have low use rates or by relying on strict controls to obtain lower operating costs. The idea of serving populations with low use rates (for example, the young rather than the elderly afflicted with chronic health problems) often is criticized since it leaves higher-cost patients either to private insurers that charge the patients more or to government-run programs, such as Medicare, which covers people over 65 and the disabled, or Medicaid, which insures very low income citizens through state and federal government subsidies.

As Medicare costs have climbed, both individuals' premiums and the government's financial burden have increased. And one of the complaints about Medicaid is that states have leeway to set stricter criteria for coverage; those that are less restrictive face higher costs if the employed or working poor gravitate there. The federal government also has arranged with hospitals receiving public funds to provide services to the uninsured poor, but hospitals routinely use their set-aside funds for such care before the budget year ends. In these cases, charges of "dumping" raise concerns that those who are dedicated to offering health care turn away desperately ill but impoverished people. The U.S. government has yet to come up with a solution for meeting health care coverage for those unable to pay in a system that provides care with an eye to the bottom line. The safety net in Japan, however, is broad.

An Organized Approach to Health Insurance

As stated above, most Japanese pay into some type of insurance fund based on their work. The unemployed, the self-employed and the retired gain coverage under plans operated at the local government level. In all cases the national government bears the administrative expenses of the programs. In addition, Tokyo provides a subsidy of 16.4 percent to corporate self-insurance programs for medical care and other benefits. The government also underwrites a 16.4 percent share of day laborers' insurance benefits and contributes 50 percent of the medical care benefits offered through municipalities and 32 to 52 percent of those available through the other alternative at the local level.

All this outflow adds up. Total government expenditures on medical care in FY 1987, for example, were Y22.7 trillion ($163.8 billion at FY 1987's average exchange rate of Y138.35=$1.00), which compares to the Y12.2 trillion spent in 1980 ($53.8 billion at 1980's average exchange rate) before the advent of a special health insurance fund for the elderly. These funds flow through a system of channels described below.

Health insurance societies - Companies that employ more than 300 people may establish their own health insurance plan or join in sponsoring one with other firms in the same line of business. (The Health and Welfare Ministry has the option of requiring firms that employ 500 or more to set up such a program.) An estimated 29.9 million people (24.5 percent of the population), including insured workers' dependents, had this type of coverage in 1987. Insurance premiums for this program are to be divided evenly, but the employee generally pays slightly less than the employer; a typical contribution is 3.5 percent of monthly pay from the employee and 4.6 percent from the employer. The premium is calculated from one of 39 monthly pay grades, ranging from Y68,000 ($544) for a possible worker contribution of Y2,380 ($19) a month to Y710,000 ($5,680) of which the worker might pay Y24,850 ($199) a month. The calculations may or may not include bonuses, depending on whether the bonus is paid at regular intervals of less than three months. People insured under these plans have better benefits (for example, 90 percent coverage for workers but between 70 and 80 percent for dependents) than those covered under the insurance schemes offered at the local government level (see below).

This regulated format contrasts with the leeway available in U.S. corporations. American employee contract negotiators are beginning to consider health benefits as significant a component of the compensation package as salaries or wages. Given that employers pay an estimated 80 percent of private health insurance premiums, the rising costs of health care and the jumble of plans available pose both a financial and administrative concern to business. One benefits consulting firm estimated that the average cost of providing employee health benefits rose 18.6 percent last year to $2,354. Another estimated the jump in employers' costs for group medical plans at 13 percent. Overall, the U.S. consumer price index for medical care rose about 6.2 percent in 1988, while the inflation rate increased just 4.4 percent.

Government-managed health insurance - Covering an estimated 26.7 percent of the population (32.6 million people in 1987), government-managed health insurance relies on the national government to be the intermediary handling premiums from those employed by small and medium-sized firms. As of April 1987 the premium rate of 8.3 percent of the insured person's monthly pay was to be

split equally between the insured and the employer. The worker pays 10 percent of actual medical costs (up to the monthly Y54,000 -- $432 -- limit), while dependents covered by the plan pay 30 percent for outpatient care and 20 percent for institutional care.

Day laborers - Construction workers and others hired by the day (about 0.1 to 0.3 percent of the population) are assessed premiums, too. The employer buys a special stamp from the postal service, places it on the laborer's own insurance ledger and cancels it. The employer also is authorized to deduct from pay the costs of the premiums, which vary according to the wage. Those paid the least, up to Y1,500 ($12) a day, are assessed Y140 ($1.12), of which they might pay 60 percent and their employers pay the remainder. Those day laborers earning Y17,000 ($136) or more face daily premiums of Y1,970 ($15.76), of which the hiree covers about 62 percent. The percentages paid by both parties are fixed. The rates listed above were valid for FY 1986.

Seamen's insurance - Crews on defined vessels (accounting for approximately 0.5 percent of the population) receive their coverage from the Seamen's Insurance Society. Similar to other employer-based coverage, these plans call for slightly lower premiums of 8.2 percent of the insured's monthly pay and require joint contributions from worker and employer.

Mutual aid associations - Both those in the national and the local governments' employ have mutual aid associations, as do private school teachers and employees. Approximately 10.4 percent of the population receives coverage from MAAs, which have the same premium requirements as mentioned above for seamen's insurance.

Community-based insurance - Also called National Health Insurance, this program covers all those nonelderly not mentioned above: the self-employed, like farmers and doctors, and employees of small businesses not falling under government-managed insurance, for example. The insuring agencies in this scheme are either municipalities (covering roughly 35 percent of the population) or National Health Insurance Associations (insuring about 3 percent). Unlike employer-based health insurance, the community program pays 70 to 80 percent of care costs for both the insured and dependents. Benefit packages may be less since the insurers are allowed to decide the contents of each package. Each household or self-employed person is responsible for covering the premium, which is set according to income, property and the number of people to be covered. The maximum annual charge per household is Y390,000 ($3,120). The premiums are levied like a tax.

Insurance for the aged - The rising costs of caring for unwell elderly prompted a realignment of coverage in which the national government pays one-fifth, local governments (prefectures and municipalities) pay one-tenth and group insurers pay seven-tenths. The contributions per entity are shown in Table 2. As mentioned above, those over age 70 and those between ages 65 and 70 who meet disability criteria pay only a fixed per-illness charge each month if they visit a physician. Caps on hospitalization, however, have been instituted to prevent warehousing of bedridden elderly in a hospital (see below).

In contrast to this defined approach to meeting the health care needs of senior citizens, the United States has a haphazard system of coverage that is relying more and more on the Medicare program, which offers hospitalization and

Table 2: Ratio of Contributions to Health Insurance for the Aged, 1985

Insurer	Costs (Y million)	Ratio
State Subsidy	Y120,210	29.6
National Government	80,140	19.7
Prefectural Government	20,040	4.9
Municipal Government	20,040	4.9
Group Insurers	280,490	69.0
Employees' Insurance	130,990	32.2
Government-Managed Health Insurance	61,400	15.1
Health Insurance Associations	45,730	11.2
Day Laborer Special Insurance	860	0.2
Seamen's Insurance	1,230	0.3
Mutual Aid Associations	21,760	5.4
National Health Insurance	149,500	36.8
Paid by Patients	6,030	1.5
Total	406,730	100.0

Source: Ministry of Health and Welfare, Investigation Department of Health for the Aged, "Outline of Social Insurance in Japan, 1987," p. 51.

physician services to those over age 65 and the eligible disabled. Health researcher John Iglehart writes in The New England Journal of Medicine that by shifting more of the burden for insuring the elderly to employer-based plans, Japan has demonstrated it "is more willing than the United States to impose policies on employers that are deemed to reflect their legitimate social obligation -- in Japan's case, requiring employers and employees to shoulder a greater proportion of the cost of care for the elderly."[5] Recent controversy over a U.S. law that went into effect this year indicates some companies may prefer to cancel their medical insurance for retirees -- thus putting more strain on Medicare -- rather than follow the law's dictates and count the costs of future, as yet unfunded, retiree health benefits when they calculate their annual profits. If a consequence of the law is to suggest weaker earnings, which in turn could reduce borrowing potential, some have said companies would have reasonable cause to opt out of coverage.

The Medicare program certainly generates debate. Washington has attempted over the years to limit the cost of Part A, hospitalization, through peer review organizations and a prospective payment system that classifies each patient's admission to a hospital into one of 468 diagnostic-related groups, each of which has boundaries for reimbursements to hospitals. Moreover, despite abundant proposals announced in the past six months to contain the 17 percent annual growth rate of Medicare Part B, physician payments, no one plan has yet caught fire.

[5]John K. Iglehart, "Health Policy Report: Japan's Medical System," New England Journal of Medicine, CCCXIX, No. 12 (September 22, 1988), p. 812.

A Physician Payment Review Commission established by Congress in 1985 has suggested a national expenditure target, much like managed trade, that would limit fees and the volume of services under Part B. Other plans have promoted revising fee schedules for types of services (for example, to discourage indiscriminate operations, surgeons might get less) or basing fees on the education and the investment each doctor has made. Obviously, a solution remains out of immediate reach. Yet, many of the problems facing the United States on Medicare are the same posed in Japan, which also reimburses physicians on a fee-for-service basis. This area is one that offers perhaps the greatest leeway for adjusting future health expenditures.

Prescription for Healthy Medical System Rests with Doctors

Japan's physicians enjoy a high status in Japanese society for a variety of reasons, not the least of which is a universal tendency to appreciate, if not honor, a healer. There were 191,346 physicians in Japan in 1986, engaged primarily in private, fee-for-service practice. An estimated 82,000 were entrepreneurs who owned medical facilities. They have independent stature and lobbying clout through the powerful Japan Medical Association. The remaining doctors worked either for the privately owned facilities or in the country's roughly 7,000 state or nonprofit hospitals or clinics (see Table 3). The 1982 nationwide average of 1.4 physicians for every 1,000 people ranked lower than many industrialized countries but higher than in the United Kingdom, where -- despite a national health insurance system -- private practice still flourishes. The U.K. ratio was 1.3 doctors per 1,000 people; the U.S. ratio was 1.9 (both are 1981 figures compiled by the OECD).

Table 3: Medical Care Facilities by Type, 1985

	State-Run Facilities*	Other Nonprofit Facilities**	Private Facilities	Total
Hospitals (20 Beds or More)	411	1,509	7,688	9,608
Number of Beds	162,750	371,301	961,277	1,495,328
Clinics (Less Than 20 Beds)	572	4,480	73,875	78,927
Number of Beds	2,512	5,127	275,751	283,390

*Operated by the central government. Includes disease-specific research institutes and former army and navy hospitals.
**Operated by prefectural governments. Includes public university medical institutions.

Source: Ministry of Health and Welfare

Fees paid to doctors under Japan's insurance system are set by the Central Social Insurance Medical Council, consisting of six health care providers and three consumer representatives. Each type of service receives a specified number of points, equivalent to itemized pricing, that can be adjusted per case. (Under the Medicare program, reimbursements are fixed according to the average cost per case -- a specific amount for a cataract operation, for

example -- and generally paid without regard to a particular patient's requirements for more or less service. The idea behind this system is to encourage efficiency by making all cases similar.)

As a result of Japan's fee structure, consultation, treatment, surgery and other skill-associated services generate generally lower returns than "material" points, such as diagnostic tests and drugs, which not only are prescribed by physicians but sold by them. (Skeptics contend drug prescriptions often are more financially indicated for the doctor than medically indicated for the patient, as discussed below.) The fee system itself encourages high volume since the payment for consultations is small given the amount of time expended. However, the cost of health care does not adjust according to the rules of supply and demand. Among other reasons, when a person needs care cost may become no object.

Yet competition is very much a part of Japan's medical system. In addition to the need for volume, other aspects that encourage a high degree of competitiveness, predominantly within the private sector, are: a "do-it-myself" closed system that operates without much attention to referrals; a lack of peer review; and the rising costs of medical technology. These all offer opportunities for escalating medical costs.

- Closed practices - To become a licensed physician in Japan requires six years of medical education, roughly equivalent to a doctorate, plus five years or more of working in a hospital. The result is a medical expert, not a general practitioner in the U.S. sense. During the "residency" equivalent in a hospital, the doctor may specialize under his mentor. Medical schools have the same seniority-based reverence and cohort camaraderie visible in other areas of Japan. Thus, once a physician leaves to take up private practice or enter a small clinic, any referrals will tend to go to former colleagues, regardless of their expertise in a matter.

Tokyo attempted to increase the physician/patient ratio from 1.0 per 1,000 people in 1960 to 1.5 per 1,000 people in 1985 by creating more medical schools in the 1960s and 1970s. The idea was to make physicians less of an elite group because a larger service force would mean lower income per doctor. But once again market mechanisms did not apply. Established physicians, instead, gained increased clout, according to anthropologist Susan Long, who wrote: "Large numbers of young physicians in university and public sector hospitals mean that more experienced doctors can delegate tasks to them (as apprentices). . . . Young doctors often perform work that in the United States would be assigned to nurses (for example, history-taking in outpatient clinics). . . ."[6]

Since by law all private clinics and hospitals are physician-owned, the owners have little incentive to refer a patient to competitors or grant practicing privileges to outsiders. Extension of practicing privileges is common in the United States, enabling hospitals, which usually are nonprofit, to

[6]Susan Orpett Long, "Health Care Providers: Technology, Policy, and Professional Dominance" in Health, Illness and Medical Care in Japan: Cultural and Social Dimensions, eds. Edward Norbeck and Margaret Lock (Honolulu: University of Hawaii Press, 1987), pp. 80-81.

entice more physicians to use their facilities. In effect, Japan's system is much like that of an American HMO, PPO or Independent Practice Association. Cost efficiency is enhanced by cutting the number of physicians working on a case, but a danger lies in the physician not being an expert in all areas or having access to expertise in a particular area of care. Both the U.S. and the Japanese systems rely on subjective diagnoses; the patient's only recourse is an outside second opinion.

A further problem with a limited referral system is that many clinics and hospitals would rather duplicate another facility's services than lose a patient. This becomes even more obvious in the area of medical technology (see below), but the problem also is one of competition since survival depends in part on attracting more patients. To encourage more referrals the government recently began offering fee incentives to referring physicians.

Another way of increasing volume and income is to engage in both biomedicine, which is what the majority of physicians practice in Japan, and Chinese-style medicine, kanpo, which encompasses medicinal herbs, acupuncture and similar techniques. Until recently Tokyo did not recognized any kanpo medicine for reimbursement; thus, anyone delivering that style of care received payment strictly from the patient and not the health insurance system. Lately, however, the government has included a few kanpo treatments on the fee schedule.

- Lack of peer review - Much of Japan's health care is provided by private clinics (any facility that has less than 20 inpatient beds) and private hospitals. As a result, the law requiring a physician to own and manage the facility gives him (rarely her) a dual role as both administrator and medical director. For those in this position, the term "maximizing profits" is no stranger. The link also is attributed to the vast number of doctors' children in medical school; handing down the business through the generations is one way of retaining access to profits. Inherent in this system, however, is a lack of outside objectivity for treatment and, to a degree, billing.

The government has two ways of keeping tabs on physicians' incomes: reviews of billing irregularities through the Board of Audit of the Social Insurance Medical Fee Payment Fund and income tax audits. The board's average rate of billing disallowal is 0.8 percent, according to a textbook on the National Health Administration.[7] Dr. Naoki Ikegami of Keio University's School of Medicine, however, cites a 1985 article in Japan's hospital magazine, Byoin, that stated 1.25 percent of the 1.6 billion bills submitted annually are found to be excessive and are reduced accordingly.[8]

As recognized in last year's debate on how to revise Japan's tax structure, the self-employed -- including many doctors -- have the easiest access to tax loopholes. Previously, doctors in private clinics enjoyed exemptions on 72

[7]Japan International Cooperation Agency, National Health Administration in Japan, Vol. 1: Health Administration and Organization (n.d.), p. 51.

[8]Naoki Ikegami, "Health Technology Development in Japan," International Journal of Technology Assessment in Health Care, IV (1988), p. 243.

percent of their income. With recent changes in the tax laws those exemptions drop in some cases to 52 percent.[9] An audit by the Tokyo Regional Tax Bureau conducted on 1987 income tax returns for doctors practicing in metropolitan Tokyo and the prefectures of Kanagawa, Chiba and Yamanashi found that 91.3 percent of the 1,724 returns under suspicion had underreported incomes. Penalties included fines and assessments of back taxes.

In addition to problems with administrative oversight, lack of peer review means little oversight of appropriate medical behavior. Although Japan's health statistics may reflect overall beneficient treatment, the nonlitigious system works against consumer-generated complaints, usually evidenced in the United States through malpractice suits.

Malpractice claims against all U.S. physicians averaged less than 3.2 per 100 physicians annually prior to 1981 but then jumped to an estimated 10 suits per 100 doctors in 1985. For obstetricians/gynecologists the number of complaints vaulted from 7.1 per 100 doctors in 1981 to 26.6 per 100 in 1985. Concurrently, insurance premiums for self-employed doctors increased from $5,800 on revenues of $188,000 in 1981 to $10,500 on revenues of $226,600 in 1985.[10]

Information on malpractice suits in Japan is difficult to come by. Writing in the Journal of Ambulatory Care Management, Dr. Ikegami of Keio University said, "Malpractice suits, though traditionally rare, have been increasing, which may add to the tendency of increased utilization of examinations."[11] Physicians generally obtain insurance through the Japan Medical Association. Complaints tend to accompany errors in vaccinations given children, according to one Health Ministry official.

• Rising medical technology costs - Given the competitive nature of private- versus public-sector hospitals and clinics, each tries to vie for patients by offering the latest in medical technology. For example, Japan leads the world in the number of diagnostic computer tomography scanners owned by medical facilities. In the United States certificate-of-need legislation requires a review process before hospitals or clinics invest in costly technology, such as CT scanners. Such a requirement is lacking nationally in Japan, but regional health authorities, such as Tokyo's metropolitan government, have made moves to provide similar oversight.

As Japan's standard of living and feeling of economic well-being increase, the importance of medical technology is likely to grow. The emphasis on noninvasive procedures not only matches an apparent culturally based antipathy toward surgery and other forms of invasive medical treatment but also limits the number of personnel needed to staff surgery centers and intensive

[9]John K. Iglehart, "Health Policy Report: Japan's Medical Care System -- Part Two," New England Journal of Medicine, CCCXIX, No. 17 (October 27, 1988), p. 1169.

[10]American Medical Association Center for Health Policy Research as quoted in Journal of Medical Practice Management, Winter 1987.

[11]Naoki Ikegami, "The Japanese Health Service: An Overview," The Journal of Ambulatory Care Management, V, No. 4 (November 1982), p. 84.

care units. The fee schedule, too, encourages the use of advanced, noninvasive technology. Whether the rising costs and popularity of highly technical medical hardware will further the 15 percentage point drop in the number of physicians working in clinics between 1955 and 1984 remains to be seen. But the tug-of-war for patients appears to be a continuing, costly effort that will drive doctors either to find new sources of income or out of the marketplace.

Efforts to Contain Health Costs

A concern among health policy planners is that competition will encourage medical providers to seek new sources of income in a way that takes advantage of the national health insurance system. A primary target is Japan's rapidly aging population. Tokyo has prepared a number of responses not only to the challenge posed by the increasing number of elderly but also to the threat of new diseases, such as acquired immune deficiency syndrome, the opportunities posed by advanced medical technology and the possible manipulation of the current health system by providers.

The elderly, who use more health care services on average than other people, are expected to make up at least one-fifth of Japan's population in the early 21st century. Concurrently, a lower birth rate indicates that as the number of elderly increases fewer people will fill the working ranks that support them and the health insurance system. (The 1988 birth rate of 10.8 per 1,000 people was the latest in nine consecutive drops in the annual listing.) Passage of the 1982 Health and Medical Services Act for the Aged attempted to rationalize insurance coverage for the elderly by requiring more participation by employer-based insurance programs. The act also emphasized prevention of chronic diseases and encouraged early diagnosis both for the elderly and for those aged 40 and over who became eligible to participate in a health promotion, education and examination campaign offered at the community level.

The elderly also are considered a factor in propelling Japan to one of the industrialized world's longest rates of stay in a hospital (see Table 4).

Table 4: Selected Countries' Health Care Utilization Rates, 1982

	Inpatient Care	Hospital Admission Rate*	Average Length of Stay**	Number of Persons Per Doctor
Japan	3.6%	6.4%	56.1	738
United States	1.7	17.0	9.0	498
United Kingdom	2.4	12.7	18.6	775
West Germany	3.4	18.1	18.7	422
Sweden	4.8	18.9	22.9	427
France	3.1	12.1	14.1	480
Canada	2.1	14.7	13.3	520

*Based on hospitals with 20 or more beds, which comprise only 11 percent of Japan's hospitals. Indicates persons admitted as percent of total population.
**Patient days per admission to inpatient care.

Source: Adapted from Organization for Economic Cooperation and Development, Measuring Health Care, 1960-1983 (Paris, 1985), p. 15.

Using 1985 figures for Japan Mr. Iglehart recalculated the length of hospital stay for the total population and refined the overall average of 54.2 days to 39.4 days by excluding stays by patients with tuberculosis (207.2 days) and psychiatric care (536.3 days).[12] Not just some of the bedridden elderly but all those who are unable to be cared for at home generally end up in a hospital since waiting lists can be long at the few available long-term care facilities.

The government has attempted to cut these rates of stay by decreasing the reimbursements once a patient has been hospitalized for about two months. Many Japanese prefer a hospital to long-term care facilities, however, because the latter carry a stigma of abandonment. In the case of the elderly this stigma is reinforced by a tale of frail grandmothers abandoned on the mountain (obasuteyama). But the need for another option of providing care has become more obvious as more 35- to 50-year-old women return to part-time or full-time work and leave the ranks of caregivers. Those unable to fully manage for themselves might be able to receive daycare at community-based senior citizen centers, if these are available. The Health and Welfare Ministry also has proposed an intermediate care home, much like a nursing home, where the emphasis would be to restore health and not just "warehouse" an individual.

A cheerleader approach to keeping the elderly healthy is part of the 1988 white paper on health and welfare submitted to the cabinet in March this year. In addition to suggesting that the elderly be provided opportunities in a community to keep busy, the white paper recommended increasing the number of volunteers and community centers that could serve those confined at home.

Challenges posed by as-yet-uncurable diseases, such as AIDS as well as Alzheimer's and associated senility diseases, are prompting government-funded and private-based research into a plethora of new drugs. An estimated 0.6 percent of the population has some type of senility. Although Japan has had few cases of AIDS, Tokyo has taken action to address the possible spread of the disease.

As of January 6, 1989 Japan had recorded 97 AIDS cases and identified 1,605 people as having the AIDS-related precursor human immunodeficiency virus. This compares with a total of 90,990 AIDS cases and an estimated 945,000 to 1.4 million HIV cases reported in the United States through March 31, 1989. The predominant carriers of AIDS in Japan are hemophiliacs (see Table 5) who, to some extent, blame foreigners for shipping AIDS-tainted blood to Japan. Failure to heat-treat imported clotting agents even after they arrived in Japan also may have added to the pre-1985 numbers of those contracting AIDS. Heat treatments began in mid-1985. Luckily for Japan, where the use of blood products is more common than in many countries, the form of plasma commonly used, albumin, already had been treated and did not carry the AIDS virus.

Japan's counterattack against AIDS involves education, a mandatory reporting system that does not require naming a carrier unless the person refuses to refrain from behavior that may promote infection for others, and provisions for refusing entry to suspect foreigners if a blood test shows they have AIDS and if they are considered a threat for spreading the disease (as in the case

[12]Iglehart, op. cit., pp. 1170-1171.

of prostitutes). To limit reporting abuses by doctors, the newly enforced law provides for fines and jail terms for inaccurate accusations. Tokyo also created a research team in the Education Ministry and funded 30 researchers from 20 institutes around the country to study the disease and vaccinations against it.

Table 5: Pattern of AIDS Virus in Japan and Mortality as of February 1988

Method of Infection	Men	Women	Total	Deaths
Homosexual Contact	19	--	19	8
Heterosexual Contact with AIDS Carrier	4	4	8	4
Tainted Blood Infusions (Hemophiliacs)	37	--	37	24
Unknown Contact	1	1	2	2
Total	61	5	66	38

Note: Those who had tested positive for the HIV virus associated with AIDS numbered 1,016 in January 1988.

Source: Committee of Ministers on AIDS Problems

In recognition of the medical costs associated with AIDS, the Health and Welfare Ministry set stipends ranging from Y85,600 ($685) a month for those younger than 18 to Y208,900 ($1,671) a month for adults with AIDS. The program applies only to hemophiliacs. Their families also would receive stipends. The overall program cost is estimated at Y300 million to Y400 million ($2.4 million to $3.2 million). Obviously, if AIDS or any similar debilitating disease spreads across Japan, the cost to the insurance system would be great. Given the low number of cases, the prognosis for controlling costs for such diseases appears good.

More difficult to assess is the impact that organ transplant operations might have once the system accepts an advisory panel's recommendations to recognize cessation of brain waves as the legitimate definition of death in Japan. One writer on the subject, a lawyer, suggested that since Japan has no legal definition of death, all that is holding up transplant operations is a consensus by the parties involved that brain death should be the criteria for removing an essential organ from a no-longer functioning individual and transplanting it in another patient.[13]

However, ever since the first heart transplant operation resulted in the physician in charge being tried, but not convicted, of murdering the drowned youth who had been declared brain dead, Japanese physicians have been reluctant to test the system. As a result, those seeking transplants step outside Japan's health insurance system and seek organs overseas. The minor increase in traffic to the Philippines, Australia or elsewhere has raised fears that citizens of these countries might object to Japanese "buying" operations involving organs that already are in short supply. If Japan decided, however, to formally allow transplants, the health system would have to come to grips not only with

[13]Ichiro Kato, "Brain Death and the Myth of Social Consensus," Japan Echo, XV, No. 2 (1988), p. 55.

procuring organs but also paying for the expensive operations. Fortunately for Japan's insurance system, physicians tend to shy away from operations of all types, thus decreasing the potential impact of organ transplants.

Less hesitant are doctors about prescribing medication. The high rate of drug prescription is considered a flaw in Japan's medical system and one of the ways in which health care providers manipulate the system. Quoting an OECD report, Dr. Ikegami notes that in 1980 Japan's per capita consumption of prescribed drugs was the highest in the world and twice the U.S. rate. Although the fee schedule has encouraged prescription of drugs in the past, the Health and Welfare Ministry has tried in recent years to squeeze the profit margins that enable drug companies to discount pharmaceuticals to gain physicians' business. When the ministry sets the payment schedule for drugs, it determines the price percentile that it will cover. In the past, for example, a drug might have cost a physician Y70 ($0.56), but the government was willing to reimburse him Y90 ($0.72) since that was the price percentile chosen for the fee schedule. By not asking the doctor for the full Y90 the drug company hopes to receive more of his business. Now, however, the government is trying to achieve efficiency, decrease hidden income and inhibit any indiscriminate prescription of medications by slowly shrinking the fee schedule to a price closer to the cost of production.

Conclusion

Japan's competitive health system operates within an insurance framework that offers essentially universal coverage to all its citizens. While the government appears to be regulating costs well within the insurance structure, the potential for increasing costs lies within the fee-for-service practices of both public and private health care providers. Among the tools available for containing rising medical costs is a government-dictated fee schedule, which has been used in the past to encourage technologies, such as renal dialysis, and which is being reviewed for adjustment in light of the heavy rate of prescription drug usage. However, growing technological, demographic and pathogenic changes are putting the competitiveness of Japan's medical system to new tests with abundant reasons for increasing health costs. The government has tried through revisions in the insurance system and a variety of research and health promotions to increase the public's health I.Q. and keep chronic illnesses, and costs, at bay. Success may be incremental.

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The views expressed in this report are those of the author and do not necessarily represent those of the Japan Economic Institute.